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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,667

09/30/2003

Francis M. Creighton IV

5236-000440

5015

28997 7590 04/19/2007  
HARNESS, DICKEY, & PIERCE, P.L.C  
7700 BONHOMME, STE 400  
ST. LOUIS, MO 63105

EXAMINER

RAMIREZ, JOHN FERNANDO

ART UNIT

PAPER NUMBER

3737

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/674,667

Applicant(s)

CREIGHTON ET AL.

Examiner

John F. Ramirez

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) 1-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-41, 45-47, 51 and 52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed January 25, 2007 with respect to claims 39-41, 45-47, and 51-52 have been considered but are moot in view of the new ground(s) of rejection. Therefore, the following office action is provided in order to expedite the prosecution of this application.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 39 and 41 recites the limitation "the same selected operating point" in the last two lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 45-47, and 51-52, the phrase "an at least approximately curve" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). (see also Ex parte Eastwood, 163 USPQ 316 (PTO Bd. App. 1968)).

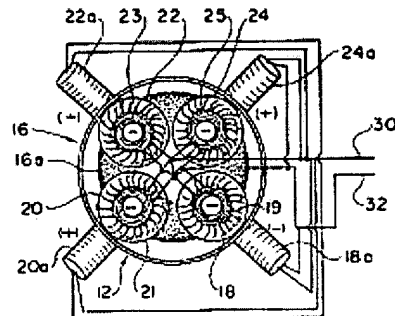
***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

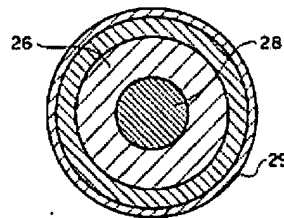
A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 39, 41 and 45-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Holcomb (US 6,042,531).



F I G . 2

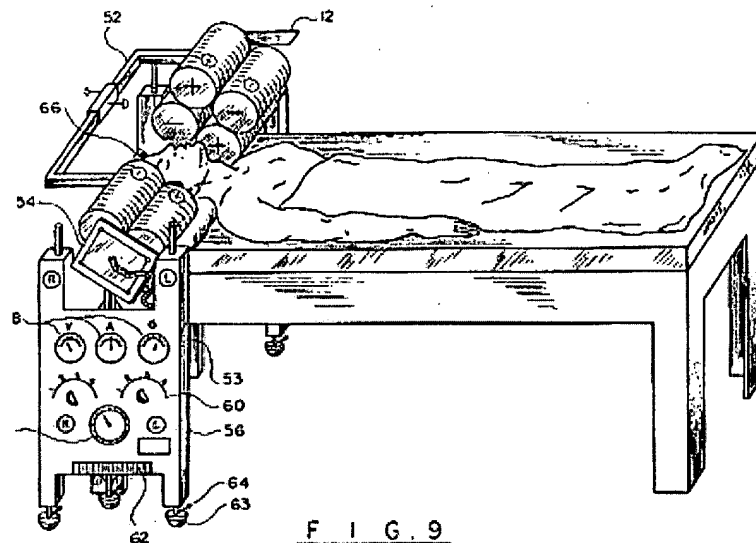


F I G . 3

Holcomb discloses a magnet having a front and a back face and comprising a plurality of segments (see Figs. 9,11), the segments each magnetized to provide substantially the maximum magnetic field in a selected direction at an operating point spaced from the front face, the back face being substantially contoured to follows a

Art Unit: 3737

surface of constant contribution to magnetic field in the selected direction at the operating point (abstract, column 15, lines 5-67, Figs. 2 and 3).



With respect to claims 45-47, Holcomb '531 shows as described above a magnet for applying magnetic field in a selected direction at a selected operating point (abstract), the magnet comprising a front face generally facing the operating point, and a back face facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction, and wherein the magnet is divided into a plurality of segments (figure 2, elements 22,24,20,18) segment comprises a front face, generally facing the operating point, the back face generally facing away from the operating point, the back face generally conforming to a constant contribution surface of the magnetic field in the selected direction (see Figures 9, 11 and related description).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 40, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holcomb (US 6,042,531) in view of Holcomb (US 5,312,321).

Holcomb '531, teaches all the limitations of the claimed subject matter except for mentioning specifically that each segment of the magnet is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point.

However, a magnet in which each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point is considered conventional in the art as evidenced by the teachings of Holcomb (US 5,312,321).

The Holcomb '321 patent teaches a magnet in which each segment is magnetized in the direction of magnetization that, at the center of mass of the segment, provides the maximum contribution to the magnetic field in the selected direction at the selected operating point. (see figures 2, 3 and 5, column 3, lines 42-68 and column 4, lines 1-26).

Based on the above observations, for a person of ordinary skill in the art, modifying the method disclosed by Holcomb'531, with the above discussed enhancements would have been considered obvious because such modifications would provide that the magnetic field and its gradient is concentrated on the central axis of each magnet rather than being distributed uniformly over the face of the magnet, so that the device will perform properly, such magnetic field distribution has a significant factor in the effectiveness of the magnetic device.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F. Ramirez whose telephone number is (571) 272-8685. The examiner can normally be reached on (Mon-Fri) 7:30 - 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JFR

  
BRIAN L. CASLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700